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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,423	02/22/2007	Colin William Newport	408091-017	8412

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EXAMINER	
BLACK, MELISSA ANN	
ART UNIT	PAPER NUMBER
3612	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,423	NEWPORT, COLIN WILLIAM	
	Examiner	Art Unit	
	MELISSA A. BLACK	3612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to Amendments and remarks filed April 20, 2009. Claims 18-23 are pending in the application and rejected as set forth below.

Claim Objections

2. Claim 18 is objected to because of the following informalities: Line 6, "a a length" should be - -a length- -. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat # 3,912,295 to Eggert, Jr. in view of US Pat # 5,732,801 to Gertz.

Eggert Jr. discloses a unitary hollow, formed metal structural member for a vehicle frame, the member comprising: a body (34) having a length and a constant first wall thickness; and a first end (34a) adapted to be axially deformed upon application of a force on said first end (see figures 2-4), said force being directed at least partially in the axial direction of the first end, said first end including a weakened section having a length and a constant wall thickness, and said first end further including a deformation initiation site comprising a tapered portion, wherein the cross sectional area of said tapered portion is gradually reduced along an axial direction towards said first end (See figure 2).

Eggert Jr. fails to disclose that the weakened section having a second wall thickness wherein said second wall thickness is less than said first wall thickness.

Gertz teaches a weakened section having a second wall (11A) thickness wherein said second wall thickness is less than said first wall (11B) thickness (see figure 11).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to change the thickness on the weakened section as taught by Gertz on the device of Eggert, Jr. in order to absorb more energy during impact.

Re Claims 19, 20 and 21, Eggert, Jr., as modified by Gertz, discloses wherein the entire length of said tapered portion comprises the second wall thickness, wherein said structural member (34) comprises a vehicle flame side rail, cradle, or pillar (see figure 1).

5. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat # 3,912,295 to Eggert, Jr. as modified by US Pat # 5,732,801 to Gertz in view of GB 2007569 to Withers and further in view of US 6,233,998 to Tseng.

Eggert, Jr. as modified fails to distinctly disclose but would be capable of being formed by the method for forming a hollow structural member for a vehicle frame and having a weakened end section integral therewith for absorbing energy, said end section having a reduced wall thickness, the method comprising the steps of: providing a tubular member to be formed, the tubular member having a generally constant first wall thickness and a first end to be provided with said weakened portion; providing a first die having an opening corresponding generally with the outer dimensions of the tubular member; providing a mandrel capable of being inserted within the said first die opening, the clearance between said mandrel and the die opening corresponding to a desired second wall thickness of the tubular member; placing the tubular member within the first die opening and axially moving the first die over a first length of the tubular member; inserting the mandrel into the first end of the tubular member along a second

length of the tubular member less than the first length, said second length comprising the length of the end section; sliding the first die over the tubular member and over the mandrel thereby causing the wall thickness of the tubular member first end to be reduced to a generally constant thickness corresponding to said second wall thickness; extracting the mandrel from the tubular member; providing a second die having a tapered die opening with an inlet section having the larger diameter; introducing said tubular member first end into the inlet section of the second die opening and forcing constriction of said first end section to assume the shape of the second die opening while maintaining said second wall thickness.

Withers teaches the method for forming a hollow structural member for a vehicle frame and having a weakened end section integral therewith for absorbing energy, said end section having a reduced wall thickness, the method comprising the steps of: providing a tubular member to be formed, the tubular member having a generally constant first wall thickness and a first end to be provided with said weakened portion; providing a first die having an opening corresponding generally with the outer dimensions of the tubular member; providing a mandrel capable of being inserted within the said first die opening, the clearance between said mandrel and the die opening corresponding to a desired second wall thickness of the tubular member; placing the tubular member within the first die opening and axially moving the first die over a first length of the tubular member; inserting the mandrel into the first end of the tubular member along a second length of the tubular member less than the first length, said second length comprising the length of the end section; sliding the first die over the tubular member and over the mandrel thereby causing the wall thickness of the tubular member first end to be reduced to a

generally constant thickness corresponding to said second wall thickness; extracting the mandrel from the tubular member (Please see figures 1 and 2).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to use the method of thinning the wall as taught by Withers on the device of Eggert Jr as modified in order to weaken the first section of the tube absorbing more energy.

Eggert Jr, as twice modified, fails to disclose providing a second die having a tapered die opening with an inlet section having the larger diameter; introducing said tubular member first end into the inlet section of the second die opening and forcing constriction of said first end section to assume the shape of the second die opening while maintaining said second wall thickness.

Tseng discloses a pipe reducing device providing a second die having a tapered die opening with an inlet section having the larger diameter; introducing said tubular member first end into the inlet section of the second die opening and forcing constriction of said first end section to assume the shape of the second die opening while maintaining said second wall thickness (see figure 1).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to use the method of Tseng to taper the first end on the device of Eggert Jr as twice modified, in order to absorb more energy.

Response to Arguments

6. Applicant's arguments with respect to claims 18-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Pat # 1,597,977, 4,355,844 and 6,412,818 all disclose a tapered end on a vehicle frame having a constant wall thickness.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA A. BLACK whose telephone number is (571)272-4737. The examiner can normally be reached on M-F 7:00-3:30 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Dayoan can be reached on (571) 272-6659. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dennis H. Pedder/
Primary Examiner, Art Unit 3612

/M. A. B./
Examiner, Art Unit 3612